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REPORT

Of F. W. JORDAN, M.R.C.S., L.R.C.P., (Lond)., L.S.A.,

Diploma in Sanitary Science of Victoria University.

MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1894.

HEATON NORRIS DISTRICT COUNCIL.

B.-50.4.-'95.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

HEATON NORRIS DISTRICT COUNCIL,

For the Year 1894.

A Summary of the Action taken during the year to prevent the spread of Disease.

WE commenced the year with ordinary sickness below the average, and very little infectious disease, but with numerous cases of Epidemic Influenza, which lessened during the short frost. After the middle of January there was recrudescence of the disorder of a severe type, and at the same time Scarlet Fever and Diphtheria made their appearance in the residential portion of the District. These latter diseases continued through February, and slightly into March. The months of April, May, and June, were entirely free from infectious disease, and during the rest of the year Scarlet Fever occurred only sporadically.

In the latter part of July, an outbreak of mild Scarlet Fever occurred in Heaton Mersey—the manufacturing portion of the district—with two cases, followed by seven in August, and three in September. The epidemic appeared now to have come to an end; but a fresh case occurred in December in a

very populous spot. The patient was sent to hospital the day the case was reported to me, with the satisfactory result that there was no spread whatever.

I may mention that last year, in order to facilitate description, I divided the District into two parts: one residential, and the other manufacturing; this division is still useful, as may be inferred from my remarks in last year's Report, which I here quote:—"These two characteristics are "somewhat mixed in each portion, but Heaton Mersey "village is distinctly a working population, and its out- "skirts assume a residential character, in conjunction "with Heaton Moor and Heaton Chapel. The two parts "are quite separate from each other; each has its own "shops and institutions; the connecting links are the "places of worship at Heaton Mersey, the sunday schools "in connection with them, the national schools, the "cotton mill, and two dairy farms. A few children from "that portion of Heaton Moor abutting on Heaton Mersey "attend the national schools, and a few of the hands "employed at the mill also reside there. The children "at Heaton Moor go to private schools chiefly, but a large "number attend St. Thomas' National Schools at Heaton "Chapel."

During 1894, the Heaton Norris Local Board ceased to exist, and the Heaton Norris District Council reigns in its stead; and the District has been divided into Wards as follows:—

Heaton Chapel Ward, ...
Heaton Moor East Ward..... } Residential portion.
Heaton Moor West Ward ... }
Heaton Mersey Ward ...Manufacturing portion.

I am sorry I cannot give the population of these areas.

The following table indicates the incidence of infectious disease:—

	Diphtheria			Scarlet Fever									Erysipelas		Typhoid	
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.	May	July	Aug.	Sep.	Oct.	Nov.	Dec.	Feb.	Nov.	Dec.	Totals
Heaton Chapel Ward	1	1	1	2	1	1	1	0	0	0	0	0	0	1	0	1	10
Heaton Moor East Ward...	0	0	1	1	0	0	0	0	0	0	1	0	1	0	1	0	5
Heaton Moor West Ward...	1	1	0	3	4	1	0	1	0	1	1	0	1	0	0	0	14
	2	2	2	6	5	2	1	1	0	1	2	0	2	1	1	1	29
Heaton Mersey Ward	0	0	0	1	3	1	0	2	7	3	0	0	1	0	0	0	18
Total...	2	2	2	7	8	3	1	3	7	4	2	0	3	1	1	1	47
	6			38										2		1	

Of these cases there died in their own homes—

Diphtheria 1

Erysipelas 1

Typhoid 1

Six cases were sent to hospital, viz:—

Scarlet Fever .....1 from Heaton Chapel Ward,

do. .....4 from Heaton Mersey Ward,

Diphtheria ...to the Stockport Workhouse.....1 from Heaton Moor West Ward.

All these recovered.

There were reported in

1890	of Infectious	Diseases	32	cases
1891	do.	do.	36	„
1892	do.	do.	30	„
1893	do.	do.	147	„
1894	do.	do.	47	„

There was the usual tale of children going about while in an infectious condition. One case of Scarlet Fever, after being nursed for a fortnight at home attended school, the mother says at the urgent solicitation of the School Board officer. No doubt she objected to pay for a certificate of exemption. With regard to these certificates, I consider the authority requiring them should pay for them; there would be this advantage if this were the case: poor people would get a certificate of exemption at once, and any ailment of a serious character would be discovered early, to the advantage both of the child and of society at large.

My attention was drawn to the case alluded to, by three cases of Scarlet Fever which I was attending, contracted apparently at St. Thomas' National School. I found, on investigation, that the class to which these boys belonged were all right, but that in another class there was this girl with peeling hands. I sent her home, and had letters sent to the parents of all the other children in this class, warning them that their children had been exposed to the infection of Scarlet Fever, and advising them what steps to take to destroy any infection that might be adhering to their clothes or bodies. I recommended the school-master to give the children of this class a fortnight's holiday, but this advice was not complied with, because "it would damage the school, and would interfere with the Government Grant."

It is extremely difficult to persuade people to let their little ones go to hospital, and it is generally those who are least able to bear the inconvenience of keeping at home an infectious case, or who can least afford the proper attention, who are the chief sinners in this respect.

In several instances the parents declined to send the

patients to hospital, on the score of expense—the charge is certainly very high.

In May, one of the private schools in the neighbourhood closed, voluntarily, on account of an outbreak of Measles among the pupils. In consequence of this, and of cases in the district, I advised the Board to include this disease in the list of notifiable diseases. I regret to say, that the resolution passed by the Board, in accordance with this advice, has not yet been promulgated. I regret it because I think something could be done to prevent the spread of the disorder were the the early cases notified. Be it remembered that it is not the simple harmless disease that some people think it is; we had six deaths from Measles during the year.

In consequence of the epidemic of Measles at Heaton Mersey, I advised the closing of St. John's day and sunday schools, and a few days afterwards as the disease appeared to be spreading, I advised the closing of the other sunday schools in the parish. I allowed all the schools to re-open on Nov. 11th. In July, there was a small epidemic of Whooping Cough in the Heaton Moor district; and in October coughs and colds were prevalent, and Influenza reappeared. Heaton Moor was the seat also of a small outbreak of Measles in December, but it soon subsided.

Account of the Sanitary state of the District generally at the end of the year.

In December, the general health of the District was good, there was very little infectious Disease. I can give no information about the drainage that has been done during the year, or of works at the sewage tanks, or of the success or otherwise of the process that is adopted for sewage purification, such matters are not referred to the Medical Officer of Health.

I found during my examination of the district, that Jersey Place was in a much more satisfactory state than it was twelve months before. Other yards were in the same state as on former occasions.

Account of Inquiries made as to conditions injurious to health existing in the District, and the proceedings in which the Medical Officer of Health has taken part or advised under the Public Health Act, 1875.

Investigations have been made into the following complaints:—

Drain Nuisances ..... many
Privy and Ashpit Nuisances 5
Vegetable and Manure Nuisances 3
Coal Gas 3
Water Closet 1
Drinking Water 2

Special Reports:—

1—Howard Avenue .....
2—Water .....
3—Ashpit in Shaw Road .....
4—Curtailment of light and air .....
5—Escape of coal gas, rendering one room of a house uninhabitable.

Room in house used as a stable 1
Letters on these and other matters 24
Visits in connection with these nuisances 41

DRAIN NUISANCES.

These complaints were not numerous, but they shew that more supervision is required in laying drains, and that some sort of inspection should be adopted by the District

Council. The only alternative is for people to insure themselves against drain defects, but why should they be put to this expense when they have a Sanitary Authority who should take a deep interest in such things? A defective drain is just as dangerous as an insecure foundation. Drains have a knack of getting out of order after a time, therefore I think there should be some provision to guard against this by seeing that the workmanship is good, and by providing suitable inspection during and after construction.

PRIVY AND ASHPIT NUISANCES.

These are often due to lodgement of water causing decomposition of the contents, to want of a roof, &c., but one of these nuisances was the subject of a formal complaint to the Board by me, as a nuisance injurious to health. The ashpit was near enough to the kitchen door as to be very oderous to anyone standing there—this means that offensive gases would enter the apartment. I advised removal of the ashpit, and better provision for the neighbours who made use of this receptacle for their refuse.

The large ashpit in School Yard, Heaton Mersey is an abomination, and ought to be done away with. The same remark is applicable to the large ashpit at the top of Park Row

SPECIAL REPORT on the DRINKING WATER

In July, I had complaints to make of the state of the drinking water from several sources. It was dirty. I received in reply to my letter, a satisfactory answer from the Stockport District Water Works Company, stating that the deposit was temporary, and due to alterations and repairs which the Manchester Corporation were making in their

works; and that the water supply of the Heaton Moor District was obtained from the Manchester Corporation reservoirs in the Longendale Valley.

On July 31st I received a letter from the Water Works Company, containing an analysis of water drawn from one of the taps in my house.

The analysis is as follows:—

Careful analysis gave the following results in grains per gallon:

Chlorine combined	0·7810
Ammonia	0·0014
do. Albumenoid	0·0028
Nitrogen as Nitrites	0·0672
Oxygen absorbed in 4 hours	0·1100
Total solid matter at 212 degs F.	6·0000
do. mineral on ignition	4·0000
do. volatile	2·0000

The slight sedimentary deposit which is probably peaty matter, is perfectly innocent in character. This matter accounts for the rather high oxygen absorbed."

C. ESTCOURT,

F.T.C., F.C.S.

On October 4th I received a letter from the Water Works Company, stating that the water would probably be discoloured, owing to necessary repairs, but I received no complaints.

Tabular Statement of Mortality within the District, classified according to Diseases, Ages, and Localities.

The area of the District is 1594 acres, and the population at the middle of 1894 is about 8,000. This is equal to a density of 5 persons to an acre. The population at the census in 1891 was 7164.

During the year 93 deaths were reported; of these 8 occurred at Mauldeth Hospital, viz: 5 males and 3 females. Two deaths took place outside the District of persons belonging thereto, viz: 1 male and 1 female; and four persons died inside the District not belonging thereto, viz: 2 males and 1 female; and one at Barnes' Home, a male.

Three of the deaths were the subjects of a coroner's inquiry.

The number of deaths to be accounted for is thus 83, of these 45 were of males, and 38 of females; as compared with 40 and 63, respectively, last year.

83 deaths are equivalent to a death-rate of 10·375 per 1,000 of population.

The deaths in each month were:—

January	5	April	9	July	5	October	8
February	6	May	4	August	3	November	9
March	7	June	8	September	9	December	10

The births were 174 (boys 90, girls 84) equal to a birth-rate of 21·75 per 1,000 of population; compared with 59 and 64, respectively, last year.

The following table gives the number of deaths at all ages, and from the principal diseases:—

	Mortality from all causes at subjoined ages								Mortality from subjoined causes, distinguishing deaths of children under 5 years of age									
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Diphtheria Typhoid Fever	Erysipelas	Measles	Phthisis	Bronchitis and Pneumonia	Heart Diseases	Injuries	All other diseases	*Total*	
Heaton Chapel Ward	23	3	4	0	1	11	4	Under 5	0	0	0	1	0	1	0	0	4	6
								5 and upwards	0	1	1	0	4	2	3	0	6	17
Heaton Moor East Ward	15	5	0	1	0	4	5	Under 5	0	0	0	0	0	0	0	0	5	5
								5 and upwards	1	0	0	0	2	2	0	0	5	10
Heaton Moor West Ward	11	1	1	0	0	2	7	Under 5	0	0	0	0	0	1	0	0	1	2
								5 and upwards	0	0	0	0	1	2	1	0	5	9
Heaton Mersey Ward	32	6	5	1	0	16	4	Under 5	0	0	0	5	0	1	1	0	4	11
								5 and upwards	0	0	0	0	4	2	2	0	13	21
Deaths outside the District of persons belonging thereto	2	0	0	0	0	2	0	Under 5	0	0	0	0	0	0	0	0	0	0
								5 and upwards	0	0	0	0	1	0	0	0	1	2
Total	83	15	10	2	1	35	20		1	1	1	6	12	11	7	0	44	83
Deaths within the District of persons *not* belonging thereto	3	0	1	0	0	2	0	Under 5	0	0	0	0	0	0	0	1	0	1
								5 and upwards	0	0	0	0	0	0	0	0	2	2
Barnes' Home	1	0	0	1	0	0	0	5 and upwards	0	0	0	0	1	0	0	0	0	1
Mauldeth Hospital	8	0	0	0	0	5	3	5 and upwards	0	0	0	0	0	2	0	0	6	8
Total	12	0	1	1	0	7	3		0	0	0	0	1	2	0	1	8	12

Of children under 1 year, 15 deaths are recorded. This is equal to an infant mortality of 86·20 per 1000 births, or 18 per cent of total deaths.

Of children aged 1 year and under 5, there are 10 deaths recorded. This is equal to 12 per cent of total deaths.

There were 8 deaths from the ordinary infectious diseases, equal to a death-rate of 1·0 per 1000 of population, or 9·64 per cent of total deaths.

The following table gives these figures along with those of previous years:

Year	Population.	Death-Rate	Birth-Rate.	Infant Mortality	Zymotic Death-Rate
Average of 10 years 1882–91..	6672	11 52	20·23	19·8	1·26
1891	7150	10·76	17·77	11·68	1·12
1892	7440	13·c3	18·80	17·52	0·67
1893	7500	13·7	16·40	15·63	1·46
1894	8c00	10·37	21·75	18·00	1·00

The following table gives the number of deaths at various age-groups compared with previous years.

Year	At all Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
1892	97	17	7	6	2	41	24
1893	103	16	7	14	8	35	23
1894	83	15	10	2	1	35	20

The following table shews the number of deaths from the ordinary infectious diseases:—

	Average for 10 years, 1882-91.	1891	1892	1893	1894
Measles	1·3	1	0	0	6
Scarlet Fever.....	1·0	3	0	3	0
Diphtheria	1·0	0	2	4	1
Whooping Cough	1·7	2	3	1	0
Fever	1·5	1	0	1	1
Diarrhœa	2·0	1	0	3	0
Total	8·5	8	5	12	8

The following table shows the mortality from certain classes of disease, the proportion to population, and to 100 deaths.

	Total Deaths	Deaths per 1000 of population	Proportion of Deaths to 100 Deaths.
Seven principal ZymoticDiseases	8	1	9·64
Bronchitis and Pneumonia, not including Phthisis.....	11	1·4	13·25
Tubercular Diseases, (Phthisis, Scrofula, Rickets, Tabes).....	12	1·5	14·5
Wasting Diseases (Atrophy, Debility, & Premature Birth)	4	0·5	4·82
Convulsive Diseases	3	0·37	3·8

With regard to these statistics, the first point to notice is that the birth and death rates are much more satisfactory than they were last year. The births are 50 per cent more numerous, and the deaths—after making proper allowances—are 20 per cent less.

The population has greatly increased in the last twelve months, and so the figure I have given is not calculated from the census enumeration, but is based on information I have obtained from the Clerk.

By dint of much trouble, I have placed to each Ward its due proportion of cases of Infectious disease and of deaths. Another year this will be easier to do, and I shall also be able to give the population of each Ward, I hope.

The lessened number of deaths is due to a smaller mortality in ages from 5 to 25. The infant mortality looks high: 18 per cent of total deaths. This of course is owing to the smaller number of deaths,and the larger number of births. The same remark applies to the next group, 1 to 5.

The number of deaths from infectious disease is, of course, much less than it was last year; owing to the absence of any widespread epidemic of Scarlet Fever and Diphtheria.

It is a remarkable circumstance, though, that out of 38 cases of the former,there should have been no deaths,and only one death out of six cases of diphtheria. The Typhoid case contracted the disease elsewhere, and inquiry from the Medical Officer of Health of the place indicated showed ample cause for the illness, in a bad state of the drains. Some of the deaths from Measles might have been prevented by a more timely knowledge of the existence of the cases.

THE WEATHER FOR 1894.

JANUARY.—Fine, bright, frosty with south east winds. On the 11th, changed to south west and weather became warmer with plenty of rain. Weather stormy about 14th, after this dull with a fair amount of sunshine generally in a morning, afternoons and evenings generally wet. Mist on three days. Snow on two days. Month closed with north west gales.

FEBRUARY.—At commencement we had fine, bright sunny weather with north west winds, followed by stormy weather. On the 12th,a violent gale from the south west; wind changed to east, and we had a few days of fine, bright, cold weather. this giving place to warmth and wet and south west winds. Mist on six days.

MARCH.—South-west winds for a few days with dull wet weather, followed by north-west winds, which then became more westerly with stormy weather. The latter part of month was sunny and warm, wind south-east. No fires in our rooms. Hazy on 15 days. A fine aurora on the 30th.

APRIL.—South-east winds most of month, with a sprinkling of south-west and west winds. On the whole weather was fine, bright, sunny, and warm. Showery at times and cool winds. Slight thunder on three days, and thunderstorms on the 3rd, 11th, and 17th.

MAY.—North-west winds interspersed with southerly breezes. South-east winds in middle of month with sunny weather. We had a fair amount of fine weather and also of rain. A storm with hail on 4th. A little thunder on three days. Severe thunderstorm on the 29th. Haze on two days.

JUNE.—South-west breezes predominated with north west by westerly winds at times. Easterly at end of month. A good deal of fine, bright, sunny, hot weather, heavy rain at times. A little thunder on the 5th. Stormy from the north-west on the 11th. Several frosty nights.

JULY.—South-east winds at the beginning and end, rest of month north-west and south-westerly breezes. On the whole fine, bright, and warm, interspersed with showers and cool winds. Stormy in middle of month and wet. A little thunder on 2 days. Thunderstorms on the 25th, from the south-east, then delightful summer weather for a few days

AUGUST.—Wind mostly west-north-west,occasionally more southerly. Weather being dull, wet, and warm, stormy at times. Near the end we had 4 days of east-south-east winds which at the close backed to north-west with fine, bright, sunny weather. Thunder on 26th, haze on 3 days.

SEPTEMBER.—High barometer. The north-west winds of last month changed to easterly for two days with fine, bright weather, a small break of westerly breezes for a day or two. And rest of month winds were mostly east-south east with bright, cool weather and brilliant sunshine. Mist on 6 days.

OCTOBER.—East winds continued until the 8th, with fine, dull weather when north-westerly breezes with a little south occasionally and warmer weather supervened. After the 18th, the wind became more southerly with rain. A small thunderstorm on 29th. Mist on 12 days.

NOVEMBER.—For over half the month the wind was west or south-west, with plenty of rain, bright and warm. Latter half of month cooler with finer weather and east winds.

DECEMBER.- The month opened with a short spell of fine weather. South-east winds which changed to westerly. The latter half of month we had rain every day with high winds and storms. Mist on 13 days.

	Mean reading of Barometer		Mean daily Temperature		Rainfall in inches	
	1893.	1894.	1893.	1894.	1893.	1894.
1st Quarter.....	29·907	29·771	39·6	41·0	5·240	9·100
2nd Quarter	30·059	29·751	53·8	50·9	4·595	7·565
3rd Quarter	29·874	29·969	59·1	57·1	10·150	7·800
4th Quarter	29·907	29·709	44·7	45·0	8·180	7·805
					28·165 on 202 days	32·270 on 207 days

From this table we see that in 1894, the barometric pressure was on the whole lower than in the previous year; that the mean daily temperature was more equable, and that there was considerably more rain and more wet days.

The highest barometric reading was in January 30·647; and the lowest 29·655 in December. The highest temperature in the shade 4 feet about the ground, was 82·0 degs. in July; and the lowest in January, 13·5. There was a gradual rise in the mean daily temperature of the air from 38·5 in January, to 60·4 in July and then a gradual fall to 41·4 in December.

The highest temperature in the sun was 131·0 in June; the lowest temperature on the grass was 6·2 in January.

In June when there was the highest temperature in the sun, the temperature on the grass went down to 26·0 and

in July, which was the warmest month, the temperature on the grass went down to 26·2.

There was a gradual rise in the temperature of the ground, 2 feet below the surface from 39·6 in January to 58·4 in July, and then a gradual fall to 41·9 in December. (Compare with this the figures for the mean daily temperature of the air.)

There was least moisture in the atmosphere at 9 a.m. in May, *viz:* 74 per cent of total saturation. The finest month in the year was September, it had only 0·930 inch of rain which fell on six days. This month had less cloud than any other.

Summary of METEOROLOGICAL OBSERVATIONS for 1894

Taken by F. W. JORDAN, M.R.C.S., at Heaton Moor, Lancashire, at 9 a.m. daily

	BAROMETER Cistern 240 feet above sea-level Observations redu ed to sea-level and to 32 degs. F.			TEMPERATURE.													
				In Shade.					On Grass Earth, 2 ft. deep								
1894 *Month.*	Highest	Lowest	Average	Highest	Lowest	Mean daily temp'rature	Black Bulb, highest in sun	Bright Bulb same days as blk	Highest	Lowest	Highest	Lowest	Average	Average humidity per cent, 9 a.m.	Rainfall	Days on which Rain fell	Cloud 9 a.m. entirely overcast, equals 100
JANUARY	30·647	29·273	29·731	53·2	13·5	38·5	91·0	64·0	40·0	6·2	41·8	36·8	39·6	87	2·530	24	81
FEBRUARY	30·549	28·908	29·762	64·8	24·8	41·1	97·5	63·2	43·0	18·0	42·2	38·0	40·1	86	4·055	20	82
MARCH	30·497	29·024	29·821	66·0	26·8	43·5	114·0	79·0	40·5	20·0	44·0	40·0	41·5	84	2·515	15	70
APRIL	30·322	29·269	29·317	71.0	34·0	50·2	122·0	78·5	41·0	21·0	48·8	44·5	47·6	77	1·815	18	70
MAY	30·434	29·515	29·948	64·0	29·5	47·6	125·0	82·0	41·8	17·5	51·5	47·2	49·1	74	2·410	19	78
JUNE	30·396	29·612	29·988	81·5	39·0	54·9	131·0	95·5	48·0	26·0	58·0	49·2	53·3	78	3·340	17	70
JULY	30·284	29·280	29·849	82·0	44·5	60·4	130·8	96·2	70·0	26·2	60·2	56·8	58·4	76	2·925	18	75
AUGUST	30·269	29·381	29·885	67·0	43·2	58·0	122·5	83·2	49·0	26·0	60·5	55·8	57·6	84	3·945	23	90
SEPTEMBER	30·535	29·744	30·174	65·8	30·5	53·1	110·4	77·0	40·8	15·5	57·2	50·5	53·8	85	0·930	6	64
OCTOBER	30·511	28·865	29·872	64·5	28·0	47·1	104·5	74·0	39·0	12·0	52·0	45·2	49·2	91	3·185	13	93
NOVEMBER	30·527	28·969	29·899	63·0	30·2	46·5	110·5	78·0	40·5	13·8	49·0	44·0	46·1	89	1·950	15	81
DECEMBER	29·655	29·041	29·357	53·5	28·0	41·4	67·0	49·2	33·5	12·5	43·5	40·0	41·9	92	2·670	19	95
															32·270	207	